

### Abstract of the Disclosure

Disclosed is an inductor, which employs carbon nanotubes and/or carbon nanofibers synthesized in a shape of coils, so that the inductor has a high inductance even in a minute circuit of a nano-size or a micro-size. The inductor may have a carbon nanotube and/or carbon nanofiber synthesized in a shape of a coil, in which the carbon nanotube and/or carbon nanofiber is synthesized between catalysts fixed at desired locations on a substrate.